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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 071,141	02 07 2002	Joseph M. Moran	MORAN 3	3537

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EXAMINER

SUCHECKI, KRYSTYNA

ART UNIT PAPER NUMBER

2882

DATE MAILED: 08 13 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/071,141

Applicant(s)

MORAN, JOSEPH M.

Examiner

Krystyna Suchecki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4, 10-13, 15, 17-20, 22-29 and 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 17-20, 22 and 32 is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-13 and 23-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 10-13, 23-25 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamane (US 5,566,262).

3. Regarding Claim 1, Yamane teaches a packaging member (Figure 4, item 11) for forming at least part of a hermetic package (Figure 16), said packaging member having a portion thereof for forming an interior surface of a hermetic package and having at least one side wall which at least partly defines an opening (11a) therethrough, said packaging member comprising: an optical element (12) passing through said opening in said packaging member; a bonding material (13) bonding said optical element to at least a portion of said one side wall of said packaging member, said bonding material having a surface adjacent said portion of said housing member for forming an interior surface, said bonding material being prone to emission of undesirable components into the interior of the hermetic package; and a layer of sealing material (14, 24) covering said surface of said bonding material adjacent said portion of said housing member, said layer of sealing material being one which is not prone to emission of undesirable components and which limits undesirable components emitted from the bonding material from entering the interior of the hermetic package (Column 8, lines 46-49).

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4. Regarding Claim 2, Yamane teaches a packaging member wherein said bonding material is epoxy resin (Column 5, line 49).
5. Regarding Claim 3, Yamane teaches a packaging member wherein said sealing material is metal (Column 6, lines 48-57 and Column 8, line 22-53).
6. Regarding Claim 4, Yamane teaches a packaging member wherein said optical element is an optical fiber (item 12).
7. Regarding Claim 10, Yamane teaches a hermetic package comprising: a packaging member (item 11) for forming at least part of a hermetic package (Figure 16), said packaging member having a portion thereof for forming an interior surface of a hermetic package; said packaging member defining an opening extending therethrough (11a); an optical element (12) passing through said opening in said packaging member; a bonding material (13) which bonds said optical element to said packaging member, said bonding material having a surface adjacent said portion of said housing member for forming an interior surface, said bonding material being prone to emission of undesirable components into the interior of the hermetic package; and a layer of sealing material (14, 24) on and covering said surface of said bonding material adjacent said portion of said housing member, said layer of sealing material not being prone to emitting undesirable components and limiting undesirable components emitted by said bonding material from entering the interior of the hermetic package (Column 8, lines 46-49); and an additional member attached to said packaging member to form a complete hermetically sealed package (See particulars of Figure 16 as applied to item 11).
8. Regarding Claim 11, Yamane teaches the hermetic package of claim 10 wherein said bonding material is epoxy resin (Column 5, line 49).

9. Regarding Claim 12, Yamane teaches the hermetic package of claim 10 wherein said sealing material is metal (Column 6, lines 48-57 and Column 8, line 22-53).

10. Regarding Claim 13, Yamane teaches the hermetic package member of claim 10 wherein said optical element is an optical fiber (item 12).

11.

12. Regarding Claim 23, Yamane teaches a packaging member (11), which forms at least part of a hermetic package (Figure 16 as applied to Yamane) that defines an opening (11a) therethrough and has a portion thereof for forming an interior surface of the hermetic package, said packaging member comprising: a connector element (12) passing through said opening in said packaging member; a bonding material bonding (13) said connector element to said packaging member, said bonding material having a surface adjacent said portion of said packaging member for forming an interior surface, said bonding material being prone to emission of undesirable components into the interior of the hermetic package; and a layer of sealing material (14, 24) on and covering said surface of said bonding material adjacent said portion of said housing member, said layer of sealing material not being prone to emitting undesirable components and limiting undesirable components emitted by said bonding material from entering the interior of the hermetic package (Column 8).

13. Regarding Claim 24, Yamane teaches the packaging member of claim 23 wherein said connector element is an optical element (12).

14. Regarding Claim 25, Yamane teaches the packaging member of claim 24 wherein said optical element is an optical fiber (12).

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15. Regarding Claim 28, Yamane teaches the packaging member of claim 23 wherein said bonding material is an epoxy resin (13).

16. Regarding Claim 29, Yamane teaches the packaging member of claim 23 wherein said sealing material is metal (14, 24).

17. Claims 23 and 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Lohr (US 3,845,260).

18. Regarding Claim 23 Lohr teaches a packaging member (24), which forms at least part of a hermetic package (Figure 2 and Column 4, line 31) that defines an opening therethrough and has a portion thereof for forming an interior surface of the hermetic package, said packaging member comprising: a connector element (36) passing through said opening in said packaging member; a bonding material (42) bonding said connector element to said packaging member, said bonding material having a surface adjacent said portion of said packaging member for forming an interior surface, said bonding material being prone to emission of undesirable components into the interior of the hermetic package; and a layer of sealing material (40) on and covering said surface of said bonding material adjacent said portion of said housing member, said layer of sealing material not being prone to emitting undesirable components and limiting undesirable components emitted by said bonding material from entering the interior of the hermetic package (Column 4, line 31).

19. Regarding Claim 26. The packaging member of claim 23 wherein said connector element is an electrical connector (36).

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20. Regarding Claim 27. The packaging member of claim 26, wherein said sealing material is electrically insulating (40).

*Allowable Subject Matter*

21. Claims 15, 17-20, 22 and 32 are allowed.

22. The following is a statement of reasons for the indication of allowable subject matter:

Claims 15, 22 and 32 are allowable for at least the reason that prior art fails to teach or suggest a process of sealing an element bonded to a support member using bonding material comprising, with the other claim limitations, the step of removing a portion of the bonding material so as to leave said bonding material recessed below the surface of a support member and further coating the bonding material with a sealing material as claimed. Claims 17-20 are allowable by virtue of their dependency.

*Conclusion*

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent to Brandt (US 3,721,948) is of interest for teaching a terminal assembly with a two-layer bonding structure, but fails to teach an associated hermetic package use. Patent to Tanabe (US 5,613,031) is of interest for also teaching a two-layer bonding structure and a hermetic package structure, but Tanabe fails to specifically disclose a sealing solder. Patent to Lincoln (US 6,400,875) is of interest for teaching a capping, but fails to specifically teach a bonding material removing step. Patent to Nagata (US 5,727,105) is of interest for two layer adhesive teachings of Figure 3, and for other figures, where a plating method is given prior to soldering. A material similar to Yamane is taught as applied to the fibers within the embodiments for purposes of assisting in solder bonding, but the extension of the material onto other surfaces

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for the purposes of sealing is not readily obvious. Patent to Uchiumi (JP 58158611) is of interest for teaching a removing step and later coating step while fibers are housed in a support. Removal of a bonding material is not taught.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (703) 305-5424. The examiner can normally be reached on M-F 8-6, with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (703) 308-4858. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

ks  
August 8, 2003



DAVID V. BRUCE  
PRIMARY EXAMINER